OFFICE OF ADVANCED SCIENTIFIC COMPUTING RESEARCH

MISSION

The mission of the Office of Advanced Scientific Computing Research (ASCR), which consists of two distinct activities, is to:

° Foster and support fundamental research in advanced computing research -- applied mathematics, computer science, and networking -- and to operate supercomputer, networking, and related facilities to enable the analysis, modeling, simulation, and prediction of complex phenomena important to the Department of Energy; and

° Foster and support high-risk research in the natural sciences and engineering in partnership with the private sector leading to innovative applications relevant to the Nation's energy sector.

This Office manages the DOE-wide Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) programs.

ORGANIZATIONAL STRUCTURE

1. Mathematical, Information and Computational Sciences Division
2. Technology Research Division

FUNCTIONS

Mathematical, Information, and Computational Sciences (MICS) Division

1. Provides direct R&D support in the areas of fundamental research in advanced scientific computing research -- applied mathematics, computer science, and networking. Reviews and evaluates technical progress of research projects and disseminates information to participants in the program and to potential users in energy technology or environmental programs.

2. Develops partnerships with the scientific disciplines to test the usefulness of current advanced scientific computing research, which enables MICS to transfer the results of this research to scientists in the disciplines and helps define promising areas for future research.

3. Participates in the President's Next Generation Internet (NGI) Initiative. This initiative, building on decades of federal investment in information technology R&D, will create the foundation for more powerful and versatile networks of the 21st century.

4. Prepares, justifies, and defends the MICS subprogram of the budget internally within the Department, to the Office of Management and Budget, and to the Congress.

5. Provides advanced computing and communications facilities to support Office of Science missions.

6. Leads the Department's participation in interagency information technology initiatives coordinated by the National Science and Technology Council's (NSTC) Committee on Computing, Information and Communications (CIC) and the CIC R&D Subcommittee.

7. Provides liaison with other Departmental offices to coordinate High Performance Computing and Communications and Information Technology (HPCCIT) research and development, planning, and acquisition.

Technology Research Division

1. Funds and administers the Laboratory Technology Research subprogram conducted at the Office of Science laboratories.

2. Formulates long-range plans and policies, and develops budget submissions and justifications for the programs within the Division.

3. Manages projects funded by the Division, conducts annual technical reviews and evaluates program/project status in coordination with other DOE program managers and other agencies as appropriate; develops recommendations for continuation of projects.

4. Assesses the adequacy of established technology research goals and objectives, recommends and ensures appropriate actions are taken to achieve program goals, and evaluates project performance against established goals and milestones.

5. Analyzes and resolves Cooperative Research and Development Agreement (CRADA), Joint Work Statement (JWS), Work for Others (WFO), and user agreement issues. Conducts special studies related to legal issues affecting the program. Reviews and evaluates laboratory proprietary rights and licensing activities.

6. Develops program outreach activities to facilitate and stimulate the transfer of results from a research environment to the next phase, including technology transfer to the private sector.

7. Manages the Department's Small Business Innovation Research (SBIR) program required by the Small Business Innovation Development Act (Public Law 97-219), which mandates a uniformly structured three-phase research and development program to strengthen the role of small, innovative firms in Federally funded research and development. Represents the Department on SBIR matters before symposia, associations, and committees of the Congress.

8. Manages the Department's Small Business Technology Transfer (STTR) program required by the Small Business Research and Development Enhancement Act of 1992 (Public Law 102-564). STTR combines the entrepreneurship of small businesses with the scientific and engineering resources of the Nation's non-profit research institutions in a three-phase program similar to SBIR.

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